Complete if Known Substitute for form 1449/PTO Application Number 10/586,015 INFORMATION DISCLOSURE August 4, 2008 Filing Date STATEMENT BY APPLICANT First Named Inventor Eric T. Ahrens Art Unit 1618 (Use as many sheets as necessary) Jagadishwar Rao Samala Examiner Name 4 CAMU-P01-002 1 of

Attorney Docket Number

	U.S. PATENT DOCUMENTS							
Exami Initials	<b>*</b>	Cite No. <sup>1</sup>	Document Number  Number-Kind Code <sup>2 ( if known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
/J.S./		AT1	2002/0192688	12-19-2002	Yang et al.			
8		AU1	2004/0109824	06-10-2004	Hinds et al.			
9999		AV1	2005/0008572	01-13-2005	Prokop et al.			
8		AW1	2005/0244384	11-03-2005	Law			
X		AX1	2006/0040389	02-23-2006	Murry et al			
88		AY1	2006/0239919	10-26-2006	Wickline et al.			
0000		AX1	2007/0253910	11-01-2007	Ahrens et al.			
XXXX		AA2	2007/0258886	11-18-2007	Ahrens et al.			
88		AB2	2009/0263329	10-22-2009	Wickline et al.			
0000		AC2	4,094,911	06-13-1978	Zollinger			
		AD2	5,785,950	07-28-1998	Kaufman et al.			
	A CONTRACTOR	AE2	5,958,371	09-28-1999	Lanza et al.			
	7	AF2	7,357,937	04-15-2008	Hsu et al.			
J.	S./	AG2	7,514,074	04-07-2009	Pittinger et al.			

	FOREIGN PATENT DOCUMENTS								
Examine Initials*	No. <sup>1</sup>	Foreign Patent Document  Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> ( <i>if known</i> )	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear				
/J <u>.</u> S	./ вк	EP 1 728 788	12-06-2006	Shinetsu Chemical Co.					
20000	BL	WO91/14664	10-03-1991	Hider et al.					
00000	ВМ	WO94/18954	09-01-1994	Clover Consolidated, Limited					
50000	BN	WO96/41647	12-27-1996	Barnes-Jewish Hospital					
00002	ВО	WO97/40679	11-06-1997	Imarz Pharmaceuticals Corp.					
2000	BP	WO05/072780	08-11-2005	Carnegie Mellon University					
9000	BQ	WO06/096499	09-14-2006	Washington University					
27600	BR	WO07/100715	09-07-2007	Washington University					
W	BS	WO08/119790	10-09-2008	Heinrich-Heine Universität Düsseldorf					
/J.S.	/ BT	WO09/009105	01-15-2009	Carnegie Mellon University					

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>			
/J.S <i>.</i> /	CT1	ABLAMUNITS et al., Acceleration of autoimmune diabetes by cyclophosphamide is associated with an enhanced IFN-gamma secretion pathway, J. Autoimmun. 13(4):383-392 (1999)				
/J.S <i>.i</i>	CU1	AHRENS et al., In vivo imaging platform for tracking immunotherapeutic cells, Nat. Biotechnol. 23(8):983-987 (2005)				
/J.S./	CV1	ALLEN et al., Cellular delivery of MRI contrast agents, Chem. Bio. 11(3):301-307 (2004)				
/J.S./	CW1	ANDERSON et al., Magnetic resonance imaging of labeled T-cells in a mouse model of multiple sclerosis, Ann. Neurol. 55(5):654-659 (2004)				

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number 10/586,015

Filing Date August 4, 2008

First Named Inventor Eric T. Ahrens

Art Unit 1618

Examiner Name Jagadishwar Rao Samala

Attorney Docket Number CAMU-P01-002

(Use as many sheets as necessary)

Sheet	2	of	4	Attorney Docket Number	CAMU-P01-0

1			_
/J,S./		ARBAB et al., Efficient magnetic cell labeling with protamine sulfate complexed to ferumoxides for cellular MRI, Blood 15:104(4):1217-23 (2004)	
С		BASSE-LUSEBRINK et al., Multi-color 19 F CSI: Simultaneous detection of differently labeled	
8		cells in vivo, Abstract #806, Proc. Int. Soc. Mag. Reson. 1 (2009)	
С	Z1	BILLOTEY et al., T-cell homing to the pancreas in autoimmune mouse models of diabetes: in	
8		vivo MR imaging, Radiology 236(2):579-587 (2005)	
<b>6</b>		BULTE et al., Preparation of magnetically labeled cells for cell tracking by magnetic resonance imaging. Method Enzymol. 386:275-299 (2004)	
8 0			
	:B2	CANTOR et al., Effector function of diabetogenic CD4 Th1 T cell clones: a central role for TNF-alpha, J. Immunol. 175(11):7738-774 (2005)	
	C2	CARUTHERS et al., In vitro demonstration using 19F magnetic resonance to augment	
99		molecular imaging with paramagnetic perfluorocarbon nanoparticles at 1.5 Tesla, Invest.	
5000000		Radiology 41(3):305-31 2006	
C	:D2	CHENG et al., Characterization of aqueous dispersions of Fe(3)O(4) nanoparticles and their	
000		biomedical applications, Biomaterials 26(7):729-738 2005	
<b> </b>   C	E2	CROWDER, et al. "Unique perflourocarbon nanobeacons improve stem/progenitor cell	
99999		tracking with MRI" FASEB Journal, vol. 20, no. 4, part 1. Marca 2006, pp.A633, Abstract.	L
С	F2	CUNNINGHAM et al., Positive contrast magnetic resonance imaging of cells labeled with	
		magnetic nanoparticles, Mag. Res. In Med. 53:999-1003 (2005)	
С		ELSTER et al., Dyke Award. Europium-DTPA: a gadolinium analogue traceable by	
		fluorescence microscopy, Am. J. Neuroradiol. 10(6):1137-1144 (1989)	
С		EVGENOV et al., In vivo imaging of immune rejection in transplanted pancreatic islets,	
80000		Diabetes 55(9):2419-2428 (2006)	
		EVGENOV et al., In vivo imaging of islet transplantation, Nat. Med. 12(1):144-148 (2006)	
~ -		FABIEN et al., Pancreatic lymph nodes are early targets of T cells during adoptive transfer of	
		diabetes in NOD mice, J. Autoimmun. 8(3):323-334 (1995)	
C		FAN et al., MRI of perfluorocarbon emulsion kinetics in rodent mammary tumours, Phys. Med.	
		& Biol. 51:211-220 (2006)	
С		FLÖGEL et al., In vivo monitoring of inflammation after cardiac and cerebral ischemia by	
9999		fluorine magnetic resonance imaging, Circulation 118:140-148 (2008)	
C		FLORIS et al., Blood-brain barrier permeability and monocyte infiltration in experimental	
9000		allergic encephalomyelitis: a quantitative MRI study, Brain. 127(Pt 3):616-27 (2004)	
С		GRANOT et al., Labeling fibroblasts with biotin-BSA-GdDTPA-FAM for tracking or tumor-	
		associated stroma by fluorescence and MR imaging, Magn, Reson. Med. 54(4):789-797	
8		(2005)	
8 C		GUDBJARTSSON at al., The Rician distribution of noisy MRI data, Magn. Reson. Med.	
.		34(6):910-914 (1995)	
С		HELMER et al. On the correlation between the water diffusion coefficient and oxygen tension	
8		in RIF-1 tumors, NMR in Biomedicine, 11(3):120-130 (1998)	
C		HITCHENS et al., Comparison of iron-oxide- and perfluorocarbon-based cellular contrast	
9		agents for detecting immune cell infiltration in models of organ transplant rejection, Abstract	
		#931, Proc. Int. Soc. Mag. Reson. 17 (2009)	
<u> </u>	R2	JANJIC et al., Self-delivering nanoemulsions for dual fluorine-19 MRI and fluorescence	
		detection, J. Amer. Chem. Soc. 130:2832-2841 (2008)	
- C	S2	JIANG et al., The Design and Synthesis of Highly Branched and Spherically Symmetric	
		Fluorinated Oils and Amphiles, Tetrahedron 63(19):3982-3988 (2007)	
		KIM et al., Interplay of tumor vascular oxygenation and tumor pOZ observed using near-	
		infrared spectroscopy, an oxygen needle electrode, and 19F MR pO2 mapping, J. Biomed Opt	
8		8:53-62, 2003	
		KIRCHER et al., In vivo high resolution three-dimensional imaging of antigen-specific cytotoxic	$\vdash$
W   C	1	T-lymphocyte trafficking to tumors, Cancer Res. 63(20):6838-6846(2003)	
*		KLUG et al., 1H/19F molecular MR-imaging in mouse models of acute and chronic	$\vdash$
/J.S./		inflammation, Abstract #3172, Proc. Int. Soc. Mag. Reson. 17 (2009)	
10.0.1		Innammaton, 7 Dottact #0 17 2, 1 100. Int. 000. Mag. Neson. 1 (2009)	Ь

Substitute for form 1449/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number 10/586,015

Filing Date August 4, 2008

First Named Inventor Eric T. Ahrens

Art Unit 1618

Examiner Name Jagadishwar Rao Samala

Attorney Docket Number

CAMU-P01-002

4

			,					
/J	.S./	CW2	KRAITCHMAN et al., In vivo magnetic resonance imaging of mesenchymal stem cells in myocardial infarction, Circulation 107(18):2290-2293 (2003)					
	8	CX2	KRAVTZOFF et al., GD-DOTA Loaded into red blood cells. A new magnetic resonance					
			imaging contrast agents for vascular system," Adv. in Exp. Med. and Biol. 326:347-326 (1992)					
CY2		CY2	LANZA et al., 1H/19F magnetic resonance molecular imaging with perfluorocarbon					
	8		nanoparticles. In: Ahrens ET, editor. In vivo cellular and molecular imaging, Curr. Top. Dev.					
			Biol. 70:58-78 (2005)					
	CZ2		LANZA et al., A novel site-targeted ultrasonic contrast agent with broad biomedical application,					
		040	Circulation 94(12):3334-3340 (1996)					
CA3		CAS	LAUKEMPER-OSTENDORF et al., 19F-MRI of perflubron for measurement of oxygen partial pressure in porcine lungs during partial liquid ventilation, Magn. Reson. Med. 47:82-89 002					
	8	CB3	LEITER et al., The nonobese diabetic (NOD) mouse, Am. J. Pathol. 128(2):380-383 (1987)					
	8	CC3	MASON et al., Hexafuoropenzene: a sensitive 19F NMR indicator of tumor oxygenation, NMR					
	000	000	Biomed 9:125-134; (996)					
	Š	CD3	McNAB et al., Tissue oxygen tension measurements in the Shionogi model of prostate cancer					
	000		using <sup>19</sup> F MRS and MRI, MAGMA 17:288-295 (2004)					
	Š	CE3	MEYER et al., Measurement of vascular volume in experimental rat tumors by 19F magnetic					
	0000		resonance imaging, Invest. Radiol. 28(8):710-719 (1993)					
	8	CF3	MILLER et al., Imaging the single cell dynamics of CD4+ T cell activation by dendritic cells in					
Ш	8		lymph nodes, J. Exp. Med. 200(7):847-856 (2004)					
	8	CG3	MIYAZAKI et al., Predominance of lymphocytes-T in pancreatic-islets and spleen of pre-					
	8		diabetic non-obese diabetic (NOD) mice - a longitudinal-study, Clin. Exp. Immunol. 60(3):622-					
	8	0110	63 (1985) MODO et al., Mapping transplanted stem cell migration after a stroke: a serial, in vivo					
	8	CH3	magnetic resonance imaging study, Neuroimage 21(1):311-31 (2004).					
$\vdash$	8	CI3	MOORE et al., Tracking the recruitment of diabetogenic CD8+ 1-cells to the pancreas in real					
	8	CIO	time, Diabetes 53(6):1459-1466 (2004)					
	8	CJ3	MORAWSKI et al., Quantitative magnetic resonance immunohistochemistry with ligand-					
	0000		targeted F-19 nanoparticles, Magn. Reson. Med. 52(6):1255-126(2004)					
	8	CK3	MORAWSKI et al., Targeted Nanoparticles for Quantitative Imaging of Sparse Molecular					
	000		Epitopes with MRK, Mag. Res. in Med. 51(3):480-486 (2004)					
	00000	CL3	NEUBAUER et al., Endothelial stem cell detection in vivo with unique perflourocarbon					
	000		nanoparticle labels using fluorine (F-19) MNRI at 1.5 T, Circulation 114(18)(Suppl. S): 251					
	8		(Abstract (2006))					
	0000	СМЗ	PAKALA end Thelper 2 (Th2) T cells induce acute pancreatitis and diabetes in immune-					
$\vdash$	0	CNO	compromised nonobese diabetic (NOD) mice, J. Exp. Med. 186(2):299-306 (1997)					
	0000	CN3	PARTLOW et al., 19F magnetic resonance imaging for stem/progenitor cell tracking with multiple unique perfluorocarbon nanobeacons, FASEB J. 21:1647-165 (2007)					
$\vdash$	8	CO3	PELCHEN-MATTHEWS et al., Phorbol ester-induced downregulation of CD41s a multistep					
	000	000	process involving dissociation from p56lck, increased association with clathrin-coated pits, and					
	00000		altered endosomal sorting, J. Exp. Med. 178(4):1209-1222 (1993)					
	8	CP3	PHILLIPS et al., MAdCAM-1 is needed for diabetes development mediated by the T cell clone,					
	0000		BDC-2.5, Immunology 116(4):525-53 (2005)					
	0000	CQ3	PHILLIPS et al., Nondepleting anti-CD4 mes ar immediate action on diabetogenic effector					
	8		cells, halting their destruction of pancreatic beta cells, J. Immunol. 165(4):1949-1955 (2000)					
	00000	CR3	PIACENTI et al., Synthesis and characterization of fluorinated polyetheric amides, J. Fluor.					
$\square$	8	000	Chem. 68:227-2(5(1994))					
*			PINTASKE et al., A preparation technique for quantitative investigation of SPIO-containing					
A A			solutions and SPIO-labelled cells by MRI, Biomed. Tech. 50(6):174-180 (2005) English					
⊢*	8	CT3	Abstract)  RIBEIRO et al., In vivo dynamics of T cell activation, proliferation, and death in HIV-1 infection:					
/	J.S./	013	why are CD4+ but not CD8+ T cells depleted? Proc. Natl. Acad. Sci. USA 99(24):15572-15577					
1			(2002)					
			1 / 0					

Sheet

3

of

Complete if Known Substitute for form 1449/PTO Application Number 10/586,015 **INFORMATION DISCLOSURE** Filing Date August 4, 2008 **STATEMENT BY APPLICANT** First Named Inventor Eric T. Ahrens Art Unit 1618 (Use as many sheets as necessary) Jagadishwar Rao Samala Examiner Name 4 4 CAMU-P01-002 of Sheet Attorney Docket Number

	CU3	RODRIGUEZ et al., In vitro characterization of an Fe(8) cluster as potential MRI contrast	
	0) (0	agent, NMR Biomed. 18(5):300-307 (2005)	
	CV3	SCHNEIDER et al., In vivo microscopic evaluation of the microvascular behavior of FITC-	
/J.S./		labeled macromolecular MR contrast agents in the hamster skinfold chamber, Invest. Radiol.	
****	014/0	35(9):564-570 (2000)	
8	CW3	SHAPIRO et al., in vivo detection of single cells by MRI, Magn. Reson. Med. 55(2):242-249	
	0)/0	(2006)	
) š	CX3	SOLOSKI, Synthesis of perfluoro (polyether) difunctional compounds, J. Fluor. Chem. 11:601-	
	01/2	612 (1978)   SOTAK et al., A new perfluorocarbon for use on fluorine-19 magnetic resonance imaging and	
8	CY3		
<b>*</b>	CZ3	spectroscopy, Magn. Reson. Med. 29:188 (1993)	
	CZS		
<b> </b>	CA4	diabetes model, Mag. Res. In Med. 58(4):725-73 (2007)  TAYLOR and DEUTSCH, 19F-nuclear magnetic resonance: measurements of [O2] and pH in	
8	CA4	biological systems, Biophys J. 53: 227-233 (1988)	
<b>8</b>	CB4	TONELLI et al., Linear perfluoropolyether diffinctional oligomers: chemistry, properties and	
	CD4	applications, J. Fluorine Chem. 95:51-71 (1999)	
-	CC4	TONELLI et al., Perfluoropolyether alkyl diesters: Structure effects of the alkyl group on the	
l š	004	kinetics of the hydrolysis reactions, J. Polym. Sci. Part A: Polym Chem. 40:4266-428 (2002)	
8	CD4	TONELLI et al., Perfluoropolyether functional eligomers: unusual reactivity in organic	
8	051	chemistry, J. Fluor. Chem. 118(1-2):107-12 (2002)	
	CE4	TURVEY et al., Noninvasive imaging of pancreatic inflammation and its reversal in type 1	
8		diabetes, J. Clin. Invest. 115(9):2454-2461 (2005)	
	CF4	VENANZI et al., Structural properties and photophysical behavior of conformationally	
8		constrained hexapeptides functionalized with a new fluorescent analog of tryptophan and a	
) š		nitroxide radical quencher, Biopolymers 75(2):128-139 (2004)	
80	CG4	WILSON et al., Measurement of preretinal oxygen-tension in the vitrectomized human eye	
l š		using F-19 magnetic resonance spectroscopy, Arch. Ophthalmol-Chic. 110(8):1098-1100	
8		(1992)	
8	CH4	WISNER et al., A modular lymphographic magnetic resonance imaging contrast agent:	
) š		contrast enhancement with DNA transfection potential, J. Med. Chem. 40(25):3992-3996	
		(1997)	
	CI4	WU et al., In situ labeling of immune cells with iron oxide particles: An approach to detect	
- Š	<u> </u>	organ rejection by cellular MRI, Proc. Natl. Acad. Sci. USA 103(6):1852-1857 (2006)	
8	CJ4	XIA et al., Tumour oxygen dynamics measured simultaneously by near-infrared spectroscopy	
	01/4	and F-19 magnetic resonance imaging in rats, Phys. Med. Biol. 51(1):45-60 (2006)	
8000	CK4	YEH et al., Intracellular labeling of T-cells with superparamagnetic contrast agents, Magn.	
-	CL4	Reson. Med. 30(5):617-625 (1993)	
8000	CL4	YOU et al., Detection and characterization of T cells specific for BDC2.5 T cell-stimulating	
<b>4 8</b> <i>b</i>	CM4	peptides, J. Immunol. 170(8):4011-4020 (2003)  YU et al., High-resolution MRI characterization of human thrombus using a novel fibrin-	
W	CIVI4	targeted paramagnetic nanoparticle contrast agent, Mag. Res. In Med. 44:867-872 (2000)	
<b>*</b>	CN4	ZHANG et al., Synthetic applications of fluorous solid-phase extraction (F-SPE), Tetrahedron	
/J.S./	CIV4	62:11837-11865 (2006)	
		02.11007-11000(2000)	

Examiner	(Inachiene Camala/ (11/14/0011)	Date	
Signature	/Jagadishwar Samaia/ (++/4/20++)	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). 2Applicant is to place a check mark here if English language Translation is attached.